

ABSTRACT OF THE DISCLOSURE

A number of data collection devices (~~10, 20, 30, 40, 50, 60, 70, 80~~), are free to move relative to each other through their environment, collecting data from their environment. They form an ad hoc wireless network (~~19, 29, 39, 49~~), ~~etc~~ in which data collected by a device ~~[[20]]~~ either by its own sensors ~~[[23]]~~, or relayed from another device ~~[[10]]~~ is transmitted to a destination ~~[[90]]~~ either directly or by means of one or more other devices ~~[[30]]~~. The destination ~~[[90]]~~ collects data collected by the mobile terminals (~~10, 20, 30~~) ~~etc~~ for subsequent processing. The wireless links (~~19, 29, 39~~) ~~etc~~ between them have to be re-arranged in order to provide the optimum network. When two devices (~~20, 30~~) come into proximity to each other, a forwarding direction (~~200~~) is determined to identify to which device ~~[[30]]~~ data should be forwarded. The devices co-operate to define their forwarding directions by exchanging data relating to their physical locations, and factors such as the spare capacity of their buffer stores, and battery condition. Thus a network (~~19, 29, 39~~) ~~etc~~ will be defined dynamically, each device having its forwarding direction ~~[[200]]~~ aimed in the direction of the next device until they reach a sink.